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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,083	04/13/2004	Nava Ariel	MIT-160	3162
51414 7590 08/07/2007 GOODWIN PROCTER LLP PATENT ADMINISTRATOR EXCHANGE PLACE BOSTON, MA 02109-2881			EXAMINER HODGE, ROBERT W	
			ART UNIT 1745	PAPER NUMBER
			MAIL DATE 08/07/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/823,083

Applicant(s)

ARIEL ET AL.

Examiner

Robert Hodge

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) 8-10, 15, 18-27, 35-37, 42 and 45-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 11-14, 16, 17, 28-34, 38-41, 43, 44 and 57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/18/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election of Claims 1-7, 11-14, 16, 17, 28-34, 38-41, 43, 44 and 57 in the reply filed on 6/20/07 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Information Disclosure Statement

The Information Disclosure Statement filed 8/18/05 has been considered by the Examiner and placed in the application file wrapper.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 28-34, 40, 41, 43, 44 and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pre-Grant Publication No. 2002/0001747 hereinafter Jenson.

Jenson teaches a solid state battery comprising a plurality of stacked thin film layers, wherein the solid state battery is at least partially integrated within the stacked thin film layers, wherein the layers include at least an anode and cathode layer, which comprises silicon, with an electrolyte layer there between that is less than about 100 nm

Art Unit: 1745

and also less than about 10 nm, the electrolyte layer comprises silicon dioxide which is substantially free of lithium, wherein the stacked layers are formed on a substrate which can be the anode, wherein the battery is integrated with an integrated circuit and further comprises a contact layer (see figures 22-24 and 26, and paragraphs [0245]-[0253], [0269], [0337], [0338] and [0344]-[0353]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-7, 11-17, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenson.

Jenson as discussed above is incorporated herein.

Jenson does not teach the overall thickness of the battery or the separate thicknesses of the anode and cathode layer. However Jenson does disclose that the

Art Unit: 1745

purpose of the battery is to make it as thin as possible because of the intended application being integrated onto an integrated circuit and optimizing the thickness of the electrolyte layer to be as thin as 10 angstroms as well as an anode current collector having a thickness of 0.5 microns (see citations above and paragraph [0171]).

At the time of the invention it would have been obvious to one having ordinary skill in the art that the overall size of the battery of Jenson would be extremely small and would overlap the size of the instantly claimed invention especially due to the nature of how thin the electrolyte layer is and the disclosed thickness of the anode current collector. See *In re Rose* 105 USPQ 237 (CCPA 1955).

Claims 1-7, 11-17, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenson in view of U.S. Patent No. 6,758,404 hereinafter Ladyanskyy.

Jenson as discussed above is incorporated herein.

Ladyanskyy teaches that in thin film batteries the anode film layer can range from 0.01-1 μm and that it is ideal to optimize the thickness of the thin film layers to optimize the performance characteristics of the battery (column 7, lines 1-10 and column 8, line 64 – column 9, line 5).

At the time of the invention it would have been obvious one having ordinary skill in the art to include very thin electrode layers in Jenson as taught by Ladyanskyy in order to provide a thin film battery with optimized performance characteristics respective to the size and application of the battery. See also *In re Rose* 105 USPQ 237 (CCPA 1955).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Hodge whose telephone number is (571) 272-2097. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RWH


JONATHAN CREPEAU
PRIMARY EXAMINER